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SEED INTELLECTUAL PROPERTY LAW GROUP PLLC
701 FIFTH AVE
SUITE 5400
SEATTLE, WA 98104

| EXAMINER |
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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*Ex parte* GIUSEPPE CALARCO, JEAN NGUYEN, GUY FORMICA,
STEPHANE GERVAIS-DUCOURET, FABIO PASOLINI,
and PAOLO BENDISCIOLI

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Appeal 2009-014741
Application 10/685,292
Technology Center 2600

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Before ERIC S. FRAHM, KRISTEN L. DROESCH, and
JULIE K. BROCKETTI, *Administrative Patent Judges*.

BROCKETTI, *Administrative Patent Judge*.

## DECISION ON APPEAL

## STATEMENT OF THE CASE

### *Introduction*

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-8, 10-14, 16-18, 20, 22, 30-39, 41-45, 48, 50-58, and 63-65. Claims 9, 15, 19, 21, 23-29, 40, 46, 47, 49, and 59-62 are cancelled. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

### *Exemplary Claim*

Exemplary independent claim 1 under appeal reads as follows:

1. A user controlled device, comprising:

a body that is movable into a plurality of positions of a three-dimensional space;

a MEMS acceleration sensor coupled to the body and configured to detect movements of said body in first and second directions; and

a microcontroller coupled to the MEMS acceleration sensor and configured to generate first control signals correlated to said positions, only while detected movements of said body are less than a speed of movement threshold and greater than an amplitude of movement threshold.

### *Rejections on Appeal*[1]

1. The Examiner rejected claims 1, 2, 8, 12-14, 16-18, 20, 22, 30-34, 36-39, 41, 54-58, and 63-65 under 35 U.S.C. § 103(a) over the combination of Bartlett (US 6,573,863) and Seungbae Lee, *Two-Dimensional Position Detection System*

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[1] Separate patentability is not argued for dependent claims 2-8, 10-12, 14, 17-18, 20, 22, 31, 33-35, 37, 39, 41, 43-45, 48, 50-58, 64 and 65 (App. Br. 13).

*with MEMS Accelerometer for MOUSE Application,* Department of EECS, University of Michigan, Ann Arbor, MI, 852-859 (2001) ("Lee").

2. The Examiner rejected claims 3, 4, 10, and 11 under 35 U.S.C. § 103(a) over the combination of Bartlett, Lee, and Svancarek (US 6,249,274).

3. The Examiner rejected claims 5, 6, and 35 under 35 U.S.C. § 103(a) over the combination of Bartlett, Lee, and Kuga (US 5,701,131).

4. The Examiner rejected claim 7 under 35 U.S.C. § 103(a) over the combination of Bartlett, Lee, Kuga, and Davison (US 4,682,159).

5. The Examiner rejected claims 42-45, 48, and 50-52 under 35 U.S.C. § 103(a) over the combination of Bartlett and Odamura (US 6,765,553).

### *Appellants' Contentions*

Appellants contend that the Examiner erred in rejecting the claims because Bartlett fails to teach or suggest "a microcontroller…configured to generate first control signals correlated to said positions, only while detected movements of said body are less than a speed of movement threshold," as recited in claim 1. (App. Br. 18). Appellants argue that Bartlett does not teach a speed threshold for either position commands or gesture commands. (*Id.*)

> (1) Bartlett executes a position command in response to every movement of its device, regardless of the speed of the movement; it is only when a series of movements are determined to have been intended as a gesture command, that the position commands that were erroneously executed are reversed, in order to return to the condition at the moment the gesture command was begun; (2) while each of Bartlett's gesture commands in its catalog will inherently include a number of thresholds related to speed, amplitude, and timing of movements, these thresholds are specific to the respective gesture

> commands, and have no bearing on other gesture commands or on position commands that are not components thereof; and (3) a movement of Bartlett's device, which is not an element of a gesture command, is not limited by any threshold associated with the gesture commands, and will therefore be executed as a position command, regardless of the speed of movement.

(App. Br. 22-23).

> Bartlett does not teach generating gesture commands upon detecting movements that are greater than a speed of movement threshold, but instead detects gesture commands upon finding a gesture command in its catalog whose component motions match the motions performed by the user, including speed, amplitude, and timing of component movements.

(App. Br. 23).

### *Issue on Appeal*

Did the Examiner err in rejecting the claims because Bartlett does not teach or suggest a speed or rate of change threshold with respect to its gesture or position commands in which it will not generate a control signal?

## ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments that the Examiner has erred. We agree with Appellants that the Examiner has erred.

The Examiner has relied on Bartlett to show "a microcontroller…configured to generate first control signals correlated to said positions, only while detected movements of said body are less than a speed of movement threshold" (claim 1).

(Ans. 3-4) Appellants allege and we agree, that it is unclear from the Examiner's rejection whether the Examiner is relying on Bartlett's position commands or gesture commands as corresponding to the first control signals (App. Br. 18). However, we find that Bartlett does not teach a speed threshold related to either the position or gesture commands. As noted by Appellants, the "[p]osition commands [of Bartlett] are correlated to a particular angular orientation of the device at any given instant in time, and are submitted instantaneously simply by virtue of holding the device at an angle . . ., while gesture commands require an interval of time for submission, and comprise unique patterns of movement over that interval of time . . . ." (App. Br. 14, citing Bartlett col. 3, ll. 24-46). The position commands of Bartlett are generated in response to tilting the device. The Examiner does not direct us to, and we do not find, anything in Bartlett that indicates a speed threshold under which the position commands will be generated. If the device is moved and a gesture command is not detected, a position command will be generated regardless of the speed at which the user manipulated the device. (Bartlett col. 3, ll. 24-29, 39-42).

The Examiner alleges that "the gesture commands . . .which have angular orientation about an axis of rotation during the time interval between $t_f$-$t_s$ as shown in Figs. 2a-2d clearly correspond to a speed threshold" (Ans. 14). We disagree. Figures 2a-2d of Bartlett display the angular orientation of the device over a certain time period. It is inherent that during that time period in which the device was moved in an angular orientation about the axis, the device moved at a certain speed. However, we do not find that the speed at which the device moved to generate a gesture command constitutes a speed or rate of change threshold under which control signals are generated as claimed by Appellants. Specifically, nothing in Bartlett teaches or suggests generating position or gesture commands "only while detected movements of said body are less than a speed of movement threshold," as set forth in claim 1.

Bartlett generates a gesture command when the user moves the device in a specific pattern that matches a corresponding pattern in its catalog. (Bartlett col. 2, ll. 38-42) . We agree with Appellants that "[while] the respective gesture commands of Figures 2a-2d will not be detected unless the speed and amplitude of movement of the device substantially matches the pattern shown for the particular command, this is not the same as a speed of movement threshold below which no gesture command is detected." (Reply Br. 2). While the pattern related to a gesture command is made over a time period, the Examiner does not direct us to, and we do not find, anything in Bartlett that teaches or suggests that there is a specific speed or rate of change threshold in which the generation of control signals will not be produced.

## CONCLUSIONS

(1) Appellants have established that the Examiner erred in rejecting claims 1-8, 10-14, 16-18, 20, 22, 30-39, 41-45, 48, 50-58, and 63-65 as being unpatentable under 35 U.S.C. § 103(a).

(2) On this record, claims 1-8, 10-14, 16-18, 20, 22, 30-39, 41-45, 48, 50-58, and 63-65 have not been shown to be unpatentable.

## DECISION

The Examiner's rejection of claims 1-8, 10-14, 16-18, 20, 22, 30-39, 41-45, 48, 50-58, and 63-65 is reversed.

REVERSED

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